UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,524	06/27/2001	Martin Boliek	074451.P134	5999

7590 12/19/2007	EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	09/894,524	BOLIEK ET AL.
	Examiner	Art Unit	
	Lan-Dai Thi Truong	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *11 October 2007*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1 and 3-28* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1, 3-28* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/11/2007 has been entered.

2. This action is response to communications: application, filed on 03/27/2001; amendment filed 10/11/2007. Claims1, 3-28; claims 1, 3, 14 and 22 are amended; claims 2, 29-38 are canceled.

3. The applicant's arguments filed on 10/11/2007 have fully considered but they are moot in view with new ground for rejections

Preamble objections

4. The preambles of claims 1 and 3 are objected to as being missing brief description of nature and intended use of designs in the claim embodiments, see 37. CFR 1.154 (b)(1)

IDS Objections

5. The listing of references in the specification (page 2, [0004]; page3, [0006]; page 4, [0006]) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim rejections-35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claims 1, 3-13, the phrase "if any" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). The appropriate correction is requested

Claim rejections-35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-23, 28 are rejected under 35 U.S.C 103(a) as being un-patentable over Deshpande et al. (U.S. 2002/0087728) in view of Larsson et al. (U.S. 2003/0110299) and further in view of Long et al. (U.S. 2002/0057446)

Regarding claim 1:

Deshpande discloses the invention substantially as claimed, including a client, comprising:

a memory having an application and a data structure stored therein, wherein the data structure identifies positions of the compressed codestream on a server and identifies data of the compressed codestream already buffered at the client, if any: (Deshpande discloses the data structure of application JPEG2000, in Deshpande's system, the locations/segments of codestream in the memory are identified; since the JPEG2000 codestream is well structured, it is possible to retrieve some portions of the codestream from the memory: figure 1, [0005]-[0008], [0042])

a processor coupled to the memory to execute to application to generate a request for portions of the compressed codestream based on indications of which portions of the codestream are already stored in the memory as indicated by the data structure: (in Deshpande's JPEG2000 environment, client is allowed to make intelligent HTTP requests to obtain required portions of image file bit streams (CUs) of the codestream from the servers: [0017]; [0003])

Size of the requested portions is determined based on at least two of resolution, layer, component, and precinct of an image specified by a user of the client: (Deshpande discloses

identifying the locations/segments of the codestream based upon those conditions e.g. precinct,

resolutions, layer, code-block, component: [0008]-[0009])

size of the request option is derived from the data structure of the client corresponding to

the client specified at least two of resolution, layer, component, and precinct of the image: (in

Deshpande's JPEG2000, parameters included in codestream markers used to indicate range of

compatible image resolution for communications between the server and the client: [0008]-

[0009]; [0028])

Wherein the codestream markers include a TLM marker and PLM marker that provide a

byte map to each of the packets, each of packets being distinguishable by tile, component,

resolution, and layer: (in Deshpande's JPEG2000 system; the image data is divided into plurality

of coded-blocks wherein each of them includes a marker (e.g. PLM/ or TLM) in the header to

provide information of coding style default i.e. decompression levels, progression order, number

of layers, code-block size, wavelet filter used, packet partition size: [0006]-[0007]; [0009]; figure

1)

prior to decoding, integrates previously obtained options of the compressed codestream

with portions of the compressed codestream received as a result of the request to create a new

codestream by putting packets in the order the packets appeared in compressed codestream: (it

would have been obvious in the art to know that each partition compressed packet/ portion is

indexed for transmitting over the network; the index then used to integrate received transmitting

compressed packets/portions back into the previous orders prior decoding process: [0006]-

[0007]; [0009]; figure 1)

However, Deshpande does not explicitly disclose client-server environment

In analogous art, Larsson discloses a JPEG2000 supports for client-server communications; therefrom, stored image on the server is partitioned into plurality of decodable units, and the client is capable to request any interesting image decodable units those the client decides more important (known as ROI). Then the client requests for the desired decodable units with chronological number indicating the number of bytes acceptable for the client's system. The client also is capable to create/ reassemble a new codestream (known as previous stored image information). Furthermore, the client is able to select the coefficient need for the server to decide what CU's are need for the server, see (abstract; [0005]; [0007]; [0050]-[0059]; figure 1-6)

updating codestream markers to reflect that the previously obtained portions of the compressed codestream and the portions of the compressed codestream received as result of the request are part of the new codestream: (in Larsson's JPEG2000 system, the client-server interactions refer to the original/previous transcoded image according the decision by the client. The interactions used to TAGS or re-sync marks in the bit stream, see [0103], i.e. the update of codestream markers in the bit stream to reflect the previous transcode image: [0098]-[0105]; figure 4-7)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Larsson's ideas of using client-side to control the scalability of JPEG2000 system into Deshphande's system in order to increase flexibilities/ efficiencies for data compress system e.g. reducing the amount of processing and encoding in a server by requests an ROI or a part of image by client, see (Larsson: [0005]-[0006])

However, Deshpande-Larsson does not explicitly disclose method of adjusting values of the at least markers to reassemble the new codestream to be compliant with the JPEG2000

standard, including adjusting the TLM and PLM markers to be compatible with corresponding

markers of the JPEG 2000 standard, so that an ordinary JPEG2000 decoder can be invoked to

decode the new codestream if the portions of the compressed codestream received as a result of

the request are not JPEG2000 compliant

In comparable art, Long discloses technique of adjusting bits limiting for byte-aligned

marker into JPEG standard for decoding cycle, see ([0061]-[0064])

Thus, it would have been obvious to a person of ordinary skill in the art at the time the

invention was made to combine Long's ideas of adjusting padding bits to byte boundary of JPEG

standard decoder into Deshpande-Larsson's system in order to employ high-standard technique

of long's into Deshpande-Larsson's system for saving resources and development time, and

further for increasing efficiencies for message coding network, see (Long: column 2, lines 53-55)

Regarding claim 3:

In addition to rejection in claim 1, Deshpande-Larsson- Long further discloses a client

coupled to the server via a network environment, wherein the client includes a memory

having an application and a data structure stored therein, wherein the data structure identifies

positions of the compressed codestream on the server and identifies data of the compressed

codestream already buffered at the client, if any: (Larsson discloses a JPEG2000 supports for

client-server communications; therefrom, stored image on the server is partitioned into plurality

of decodable units, and the client is capable to request any interesting image decodable units

those the client decides more important (known as ROI): abstract; [0005]; [0007]; [0050]-[0059];

[0049]-10054D, figure 1-6)

wherein the client request bytes of the compressed codestream from the server that are

not already stored in the memory and generates a new codestream from the bytes of the

compressed codestream requested from the server and any portion of the compressed codestream

previously stored in the memory necessary to create the image data, the new codestream

generated by putting packets in the order the packets appeared in the compressed codestream:

(the client requests for the desired decodable units with chronological number indicating the

number of bytes acceptable for the client's system. The client also is capable to create/

reassemble a new codestream (known as previous stored image information). The client is able

to select the coefficient need for the server to decide what CU's are need for the server. It would

have been obvious in the art to know that each partition compressed packet/ portion is indexed

for transmitting over the network; the index then used to integrate received transmitting

compressed packets/portions back into the previous orders prior decoding process: abstract;

[0005]; [0007]; [0050]-[0059]; [0049]-10054D, figure 1-6)

Regarding claim 14:

In addition to rejection in claim 1, Deshpande-Larsson- Long further discloses image

characteristics: (in Deshpande's JPEG2000 system; the image data is divided into plurality of

coded-blocks wherein each of them includes a marker in the header to provide information of

"coding style default i.e. decompression levels, progression order, number of layers, code-block

size, wavelet filter used, packet partition size" those share functionality with "image

characteristics" as claimed: [0006]-[0007]; [0009]; figure 1)

displaying an image corresponding to the decoded new codestream: (Deshpande: [0038])

Regarding claim 22:

This claim is rejected under rationale of claim 14

__Regarding claim 4:__

In addition to rejection in claim 3, Deshpande-Larsson- Long further discloses wherein

the portion of the compressed codestream are selected from a group of packets, tile part, and coded

data segments from a codebook (Deshpande, [0006], [0030])

__Regarding claim 5:__

In addition to rejection in claim 3, Deshpande-Larsson- Long further discloses when

executing the application, the client determines image characteristics that a user requests

(Larsson, Abstract), selects data of a compressed codestream that corresponds to the image

characteristics, determines data of a compressed codestream that corresponds to the image

characteristics that is not already buffered at the client, issues requests to the server to obtain the

data of a compressed codestream that corresponds to the image characteristics that is not already

buffered at the client, integrates data received from the server with any previously buffered data

of the compressed codestream that corresponds to the image characteristics, decodes the data of

the compressed codestream that corresponds to the image characteristics, and displays an image

corresponding to the decoded compressed codestream. (Larsson, [0002], [0008], [0021], [0062])

__Regarding claim 6:__

In addition to rejection in claim 3, Deshpande-Larsson- Long further discloses wherein

the server serves byte requests: (Larsson, [0032], 1.1-3, [0060])

__Regarding claim 7:__

In addition to rejection in claim 3, Deshpande-Larsson- Long further discloses wherein

the client further comprises a software decoder, and the client creates the compressed codestream

for the software decoder by integrating bytes requested with previously obtained bytes: (Larsson,

[0021], 1.1-4, [0062], 1.1-13)

Regarding claim 8:

In addition to rejection in claim 3, Deshpande-Larsson- Long further discloses wherein

the client determines the location and length of each packet (Larsson, [0062], 1.7-12)

Regarding claim 9:

In addition to rejection in claim 8, Deshpande-Larsson- Long further discloses wherein

the client requests a header length of a compressed file from the server that includes one or more

file format boxes and a main header of the codestream box from which the client determines the

location and length 'of each packet (Larsson, [0042], 1. 1-3, [0052], 1.1-5)

Regarding claims 10-11:   .

In addition to rejection in claim 9, Deshpande-Larsson- Long further discloses two

marker segments indicative of a map to every packet, the two marker segments comprise the

TLM nad PLM marker segments (Deshpande, [0007], 1.14-17)

Regarding claim 12:

This claim is rejected under rationale of claim 6

Regarding claim 13:

In addition to rejection in claim 3, Deshpande-Larsson- Long further discloses wherein

the compressed codestream comprises a JPEG 2000 codestream (Larsson, [0059], 1.1-12)

Regarding claims 15-18:

Those claims are rejected under rationale of claims 5-9

Regarding claims 19-20:

Those claims are rejected under rationale of claims 10-11

Regarding claim 21:

This claim is rejected under rationale of claim 13

Regarding claims 23-28:

Those claims are rejected under rationale of claims 10-13, 16-18

Conclusions

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan-Dai Thi Truong whose telephone number is 571-272-7959. The examiner can normally be reached on Monday- Friday from 8:30am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob A. Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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SUPERVISORY PATENT EXAMINER